

ABSTRACT

The present invention provides a beam measuring device which can measure a beam current value with high accuracy in a non-destructive manner and, at the same time, can measure a position of a beam.

A measuring device includes a magnetic shielding part for shielding an outer magnetic field, and a plurality of magnetic field sensors which are arranged in a shielding space which is formed by the magnetic shielding part, wherein the magnetic field sensor includes a plurality of magnetic field collection mechanisms which collect magnetic fields which the beam current to be measured generates, and the magnetic field collection mechanism is a cylindrical structural body which has at least a surface thereof formed of a superconductive body and includes a bridge portion which has only a portion thereof formed of a superconductive body on an outer peripheral portion thereof, and a magnetic field which the beam current to be measured generates is measured by the magnetic field sensors. Due to the arrangement of the plurality of magnetic field sensors, a beam position and a beam current can be detected.